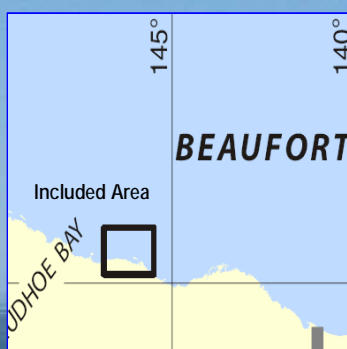


# BookletChart™

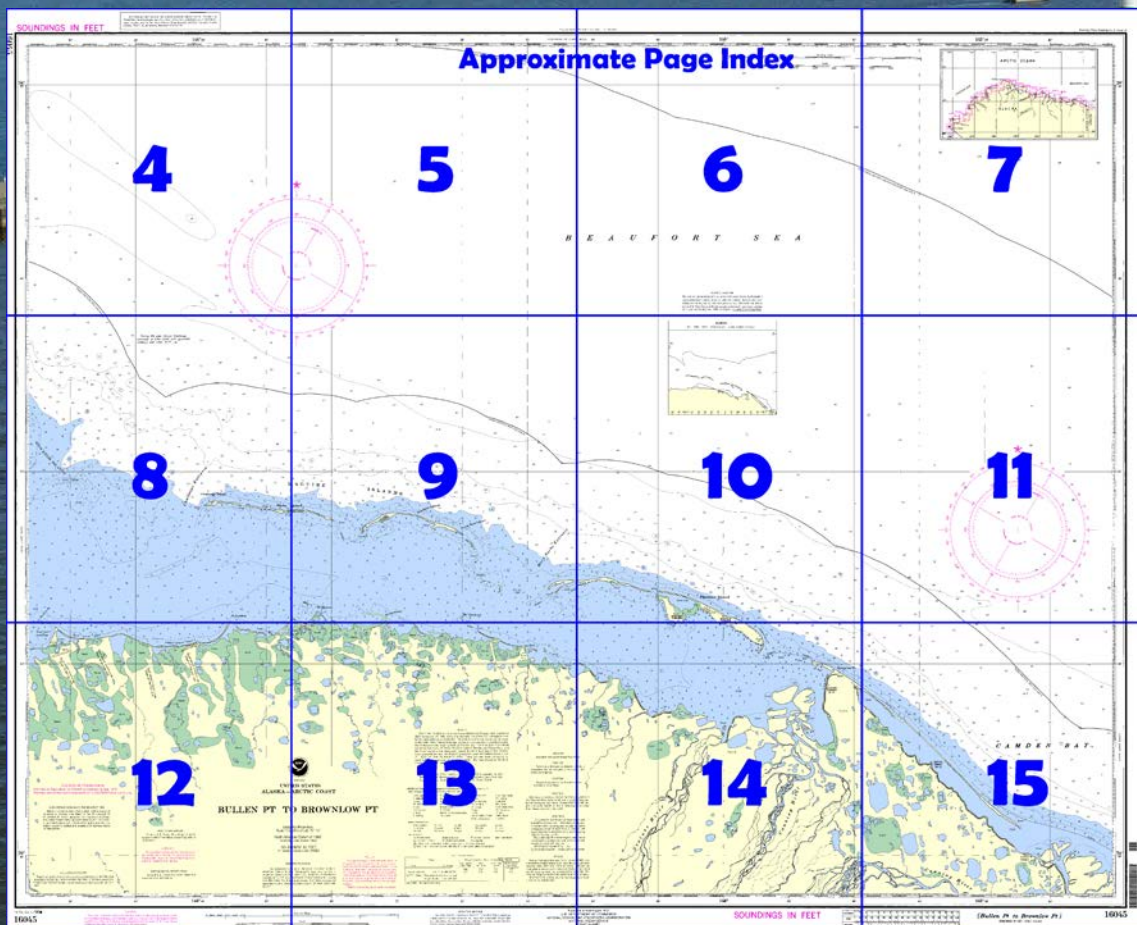
## ***Bullen Point to Brownlow Point*** **NOAA Chart 16045**



***A reduced-scale NOAA nautical chart for small boaters***  
***When possible, use the full-size NOAA chart for navigation.***



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/ncd/searchbychart.php?chart=16045>.



#### (Selected Excerpts from Coast Pilot)

**Challenge Entrance** is between Belvedere Island and Challenge Island, 6 miles to the SE. The W side of the opening and the area immediately S of Belvedere Island are shallow and dotted with tiny islets and bare shoals. The best water is 0.8 mile W of Challenge Island where vessels drawing 10 feet or less can enter with safety.

**Challenge Island**, the westernmost of the **Maguire Islands**, is a strip of sand about 0.5 mile long and 3 feet high. **Alaska Island**,

that begins 0.2 mile E of Challenge Island and continues 3 miles farther E, is a very narrow sand and gravel formation; the easternmost third has

been cut through in several places and is a series of sandbars, shoals, and islets. There is no channel between Challenge and Alaska Islands. **Duchess Island**, 1 mile E of Alaska Island, is 1 mile long and 5 feet high. There is a narrow channel between Duchess and Alaska Islands but it is not recommended.

**North Star Island**, 0.2 mile SE of Duchess Island and easternmost of the four principal Maguires, is another narrow sand barrier about 1 mile long and has extensive shoals on the S and SE sides. There are narrow channels at both ends of the island but they are shallow and subject to constant change.

**Mary Sachs Entrance**, between North Star Island and Flaxman Island, has extensive shoals on both E and W sides. There is a 0.7-mile-wide passage with depths of 10 feet about midway between the two islands.

**Flaxman Island**, which begins 2 miles ESE of North Star Island and continues 6 miles to within 2 miles of mainland Brownlow Point, is the largest barrier island between the Return Islands and the point. The W part of the island is mostly sand and gravel; the E part has tundra bluffs up to 20 feet in height and numerous small ponds, but freshwater is not available in any substantial quantity.

Passage has been made between Flaxman Island and Brownlow Point by staying close to the E end of the island until well into the lagoon; the channel has depths of 8 feet which shoal to 4 feet in the lagoon. The shoals that stretch from Brownlow Point to the E side of the narrow channel usually are marked by breakers or ice.

The mainland between Bullen Point and Brownlow Point has numerous other points, sandspits, and bluffs. The W branch of Canning River empties into the lagoon SW of Brownlow Point; the river delta forms extensive shoals in the E part of the lagoon.

**Brownlow Point** (70°09.8'N., 145°51.0'W.), 20 miles E of Bullen Point, is the most N feature of **Canning River** delta; the tundra point has elevations up to 25 feet. A sand and gravel bar, partly bare at high water, extends from Brownlow Point SE past Canning River E branch to within 2 miles of Konganevik Point. (See chart 16044.)

From Brownlow Point to Canning River E branch, the lagoon between the delta and the barrier bar is about 0.5 mile wide and has depths of 2 to 3 feet. The discharge from the river discolors the sea water for many miles. SE of the river's E branch is a lagoon that provides excellent small-craft anchorage in depths of 8 to 10 feet; the best approach from seaward is around the SE end of the barrier bar at a distance of 0.3 mile. A covered ridge that extends halfway from Konganevik Point to the bar protects the lagoon from NE wind-driven ice. The lagoon was ice free in mid-August 1976.

### U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Juneau

Commander  
17th CG District  
Juneau, Alaska

(907) 463-2000

# Table of Selected Chart Notes

## UPDATING SERVICE

FOR THIS CHART, a listing of NOTICE TO MARINERS corrections subsequent to the date shown in the lower left hand corner is available from the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## AUTHORITIES

Hydrography (from surveys of 1949 - 50) and topography by the National Ocean Service, Coast Survey with additional data from the State of Alaska, Geological Survey, and U. S. Coast Guard.

## NOTE X

The 12 nautical mile territorial sea was established by Presidential Proclamation 5928, December, 27 1988, and is also the outer limit of the U.S. contiguous zone for the application of domestic law. The 3 nautical mile line, previously identified as the outer limit of the territorial sea, is retained because the proclamation states that it does not alter existing State or Federal law. The 9 nautical mile natural resources boundary off Texas, the Gulf coast of Florida, and Puerto Rico, and the 3 nautical mile line elsewhere remain the inner boundary of the Federal fisheries jurisdiction and limit of states' jurisdiction under the Submerged Lands Act (P.L. 83-31; 67 Stat. 29, March 22, 1953). These maritime limits are subject to modification, as represented on future charts. The lines shown on the most recent chart edition take precedence.

## COLREGS, 80.1705 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.  
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

## ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Is isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

### Bottom characteristics:

Bds boulders	Co coral	gy grey	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

### Miscellaneous:

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.

(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

## TIDAL INFORMATION

Place		Height referred to datum of soundings (MLLW)			
		Mean Higher High Water	Mean High Water	Mean Tide Level	Mean Lower Low Water
Name	(Lat/Long)	feet	feet	feet	feet
Flaxman Island	(70°11'N/146°00'W)	0.7	0.6	0.3	0.0

NOTE: Tides: The periodic tide has a mean range of about one-half foot.

(784) Latest information available

## Mercator Projection

Scale 1:50,615 at Lat. 70° 15'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

## HEIGHTS

Heights in feet above Mean High Water.

## CAUTION

Depths may vary as much as 6 feet due to iceberg groundings.

## CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light List and National Imagery and Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

⊙ (Accurate location)    ◦ (Approximate location)

## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska.

Refer to charted regulation section numbers.

## CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

## WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

## CAUTION

Mariners are advised that in the shallow waters of the Beaufort Sea, water levels are strongly influenced by meteorological conditions. Strong offshore winds can produce water depths up to 0.8 meters (2.6 feet) less than those shown on this chart.

## RACON

Radar Transponder Beacons, or RACONS, are activated by radars operating on the X-Band, frequencies 9300 to 9450 MHz and, when activated, will emit an international morse code character which will be visible on the radar screen that activated the RACON. The effective range of the RACONS will be from 11 to 27 miles.

The RACONS will be maintained seasonally from 1 July to 15 September.

## SUBSISTENCE WHALING IN THE BEAUFORT SEA

Mariners should be aware that Alaskan Natives engage in subsistence whaling in the Beaufort Sea from August 15 to October 31. Vessel operators are requested to contact the Alaska Eskimo Whaling Commission at (907) 852-2392, or aewcdir@barrow.com prior to entering this area for information about the location and avoidance of traditional Native hunting parties.

## HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983. Geographic positions on North American Datum of 1927 (NAD 27) must be corrected an average of 0.771" southward and 10.453" westward to agree with this chart. For charting purposes, NAD 83 is considered equivalent to the World Geodetic System of 1984 (WGS 84) datum.

## SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

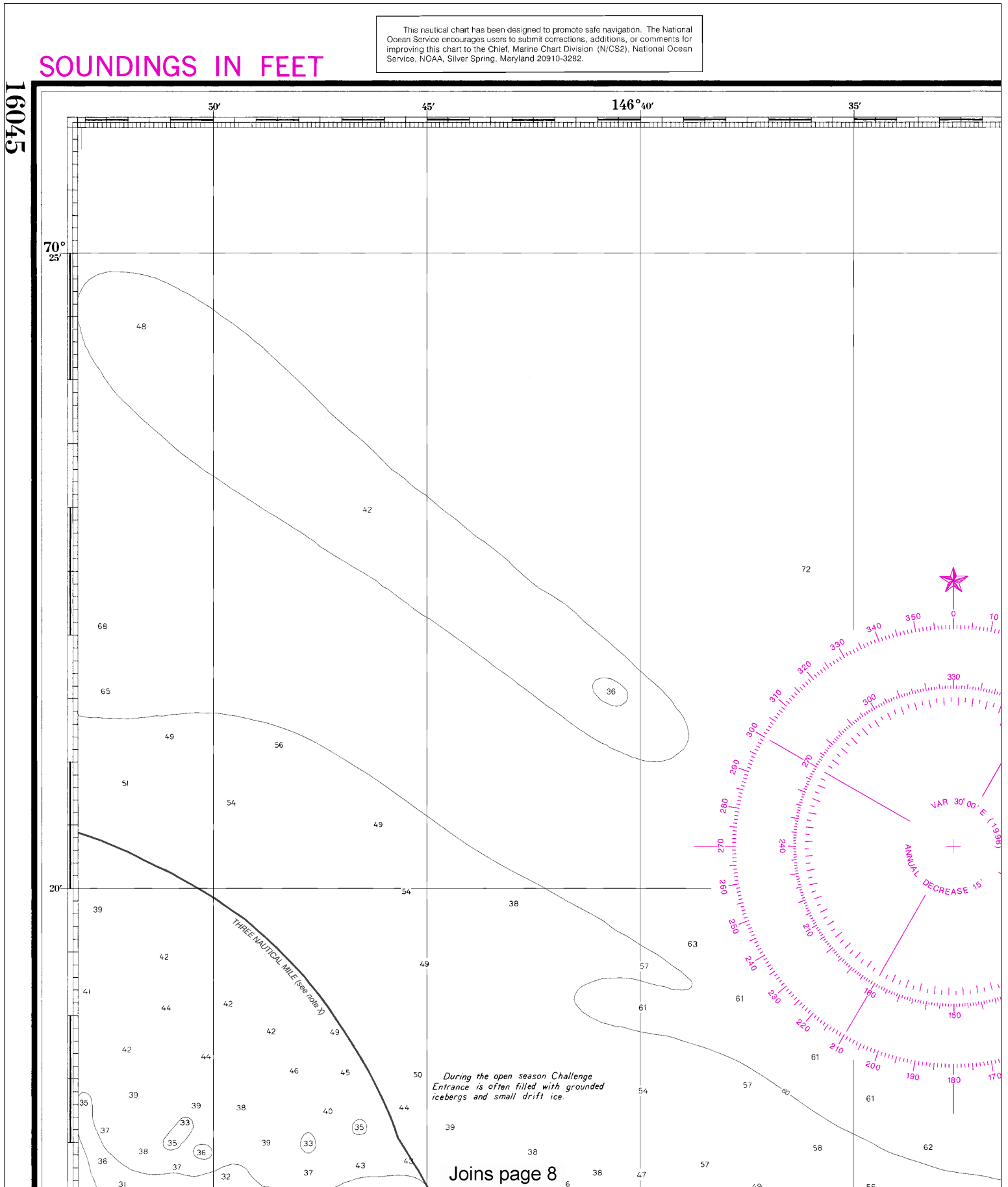
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

# SOUNDINGS IN FEET

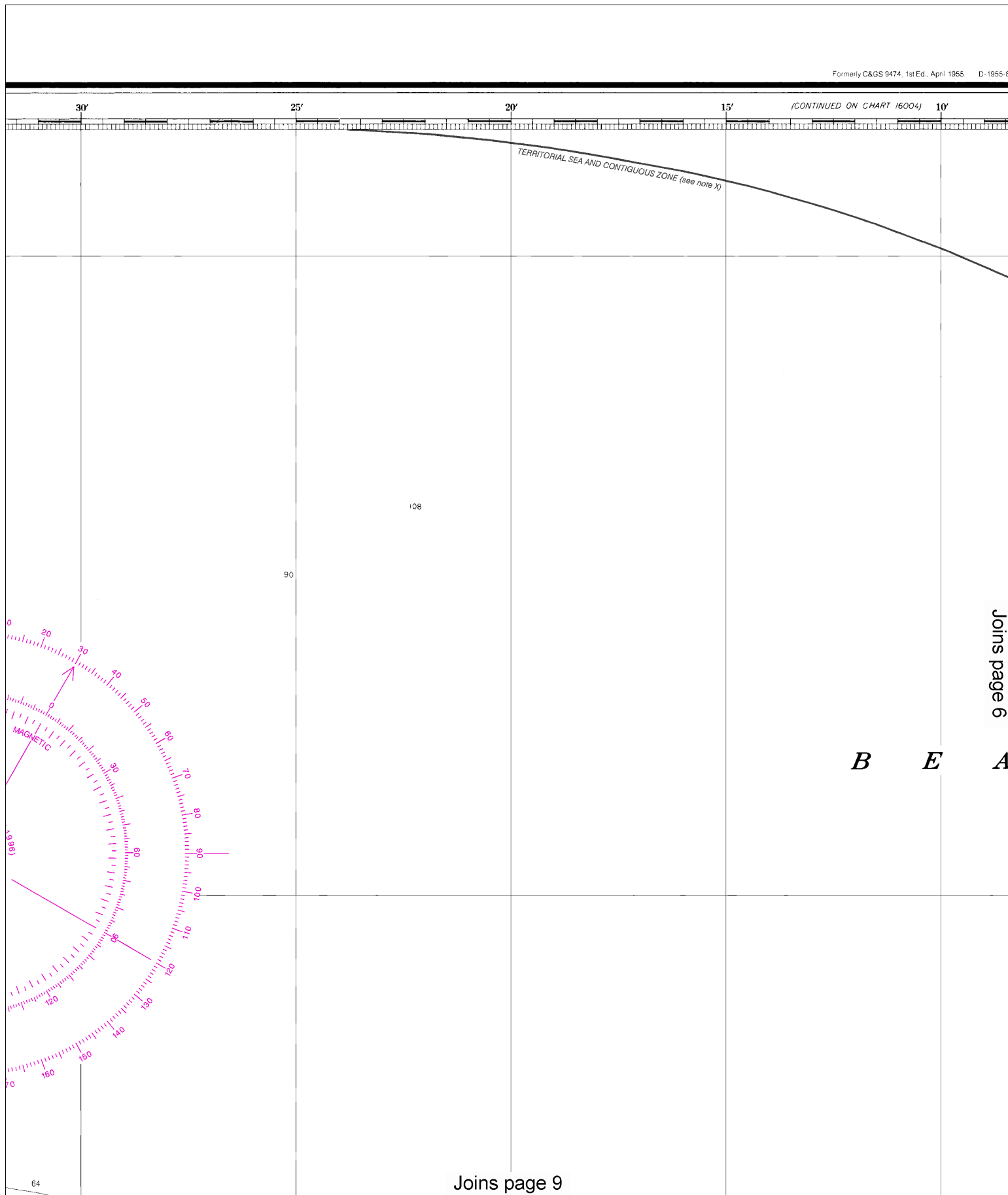
16045

4

Note: Chart grid lines are aligned with true north.







This BookletChart was reduced to 70% of the original chart scale.  
The new scale is 1:72307. Barscales have also been reduced and  
are accurate when used to measure distances in this BookletChart.

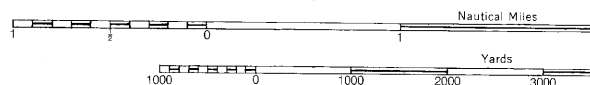
(CONTINUED ON CHART 16004)

10'

05'

146°

55'



121

123

122

123

90

Y  
Strobe  
Ra Ref  
Priv

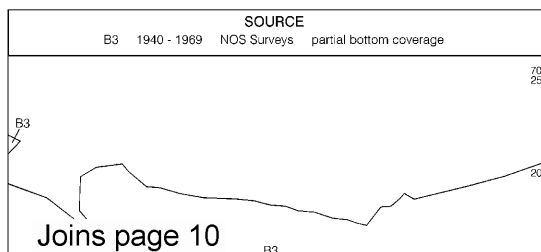
Subm buoy  
(cov 14 fms)

Subm buoy  
(cov 15 fms)

*B E A U F O R T S E A*

#### SOURCE DIAGRAM

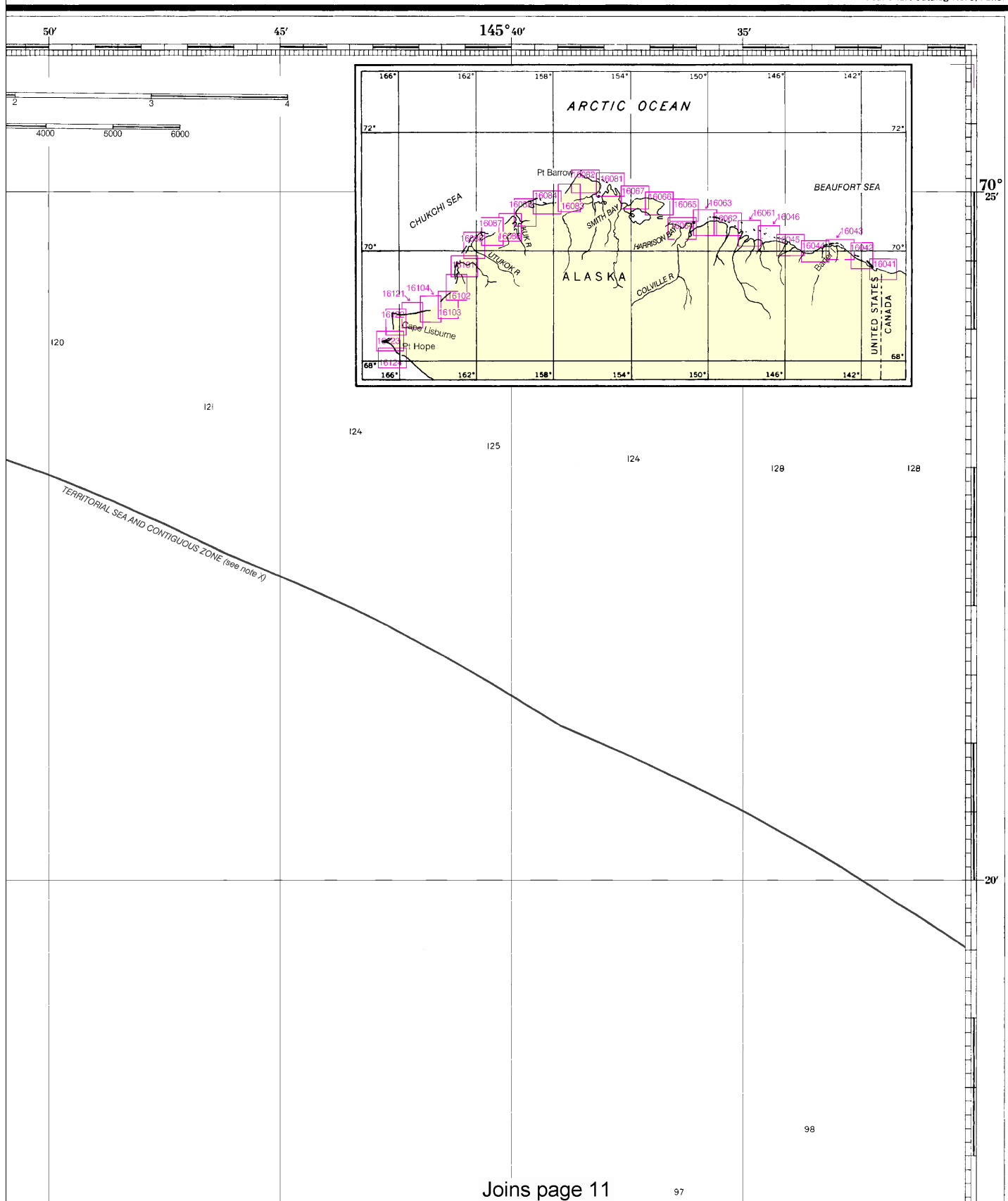
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, *United States Coast Pilot*.



Joins page 5

6

Note: Chart grid lines are aligned with true north.

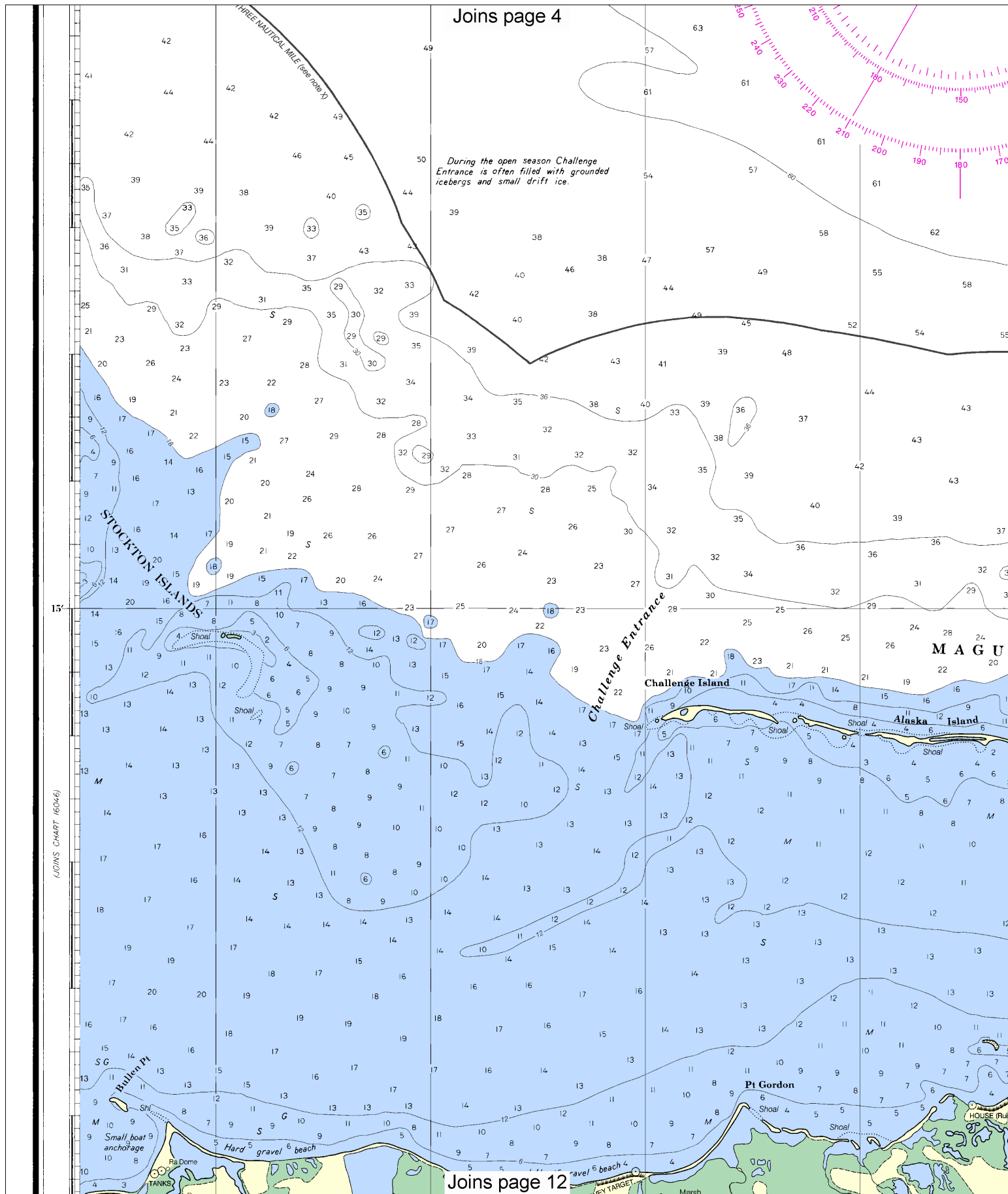


Joins page 11

97

This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4812 11/27/2012,  
 NGA Weekly Notice to Mariners: 4812 12/1/2012,  
 Canadian Coast Guard Notice to Mariners: 0912 9/28/2012.

7



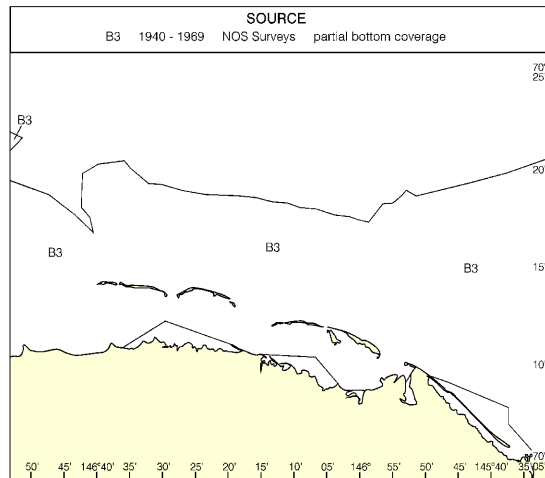




# Joins page 6

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, *United States Coast Pilot*.



Joins page 9

Sary Sachs Entrance

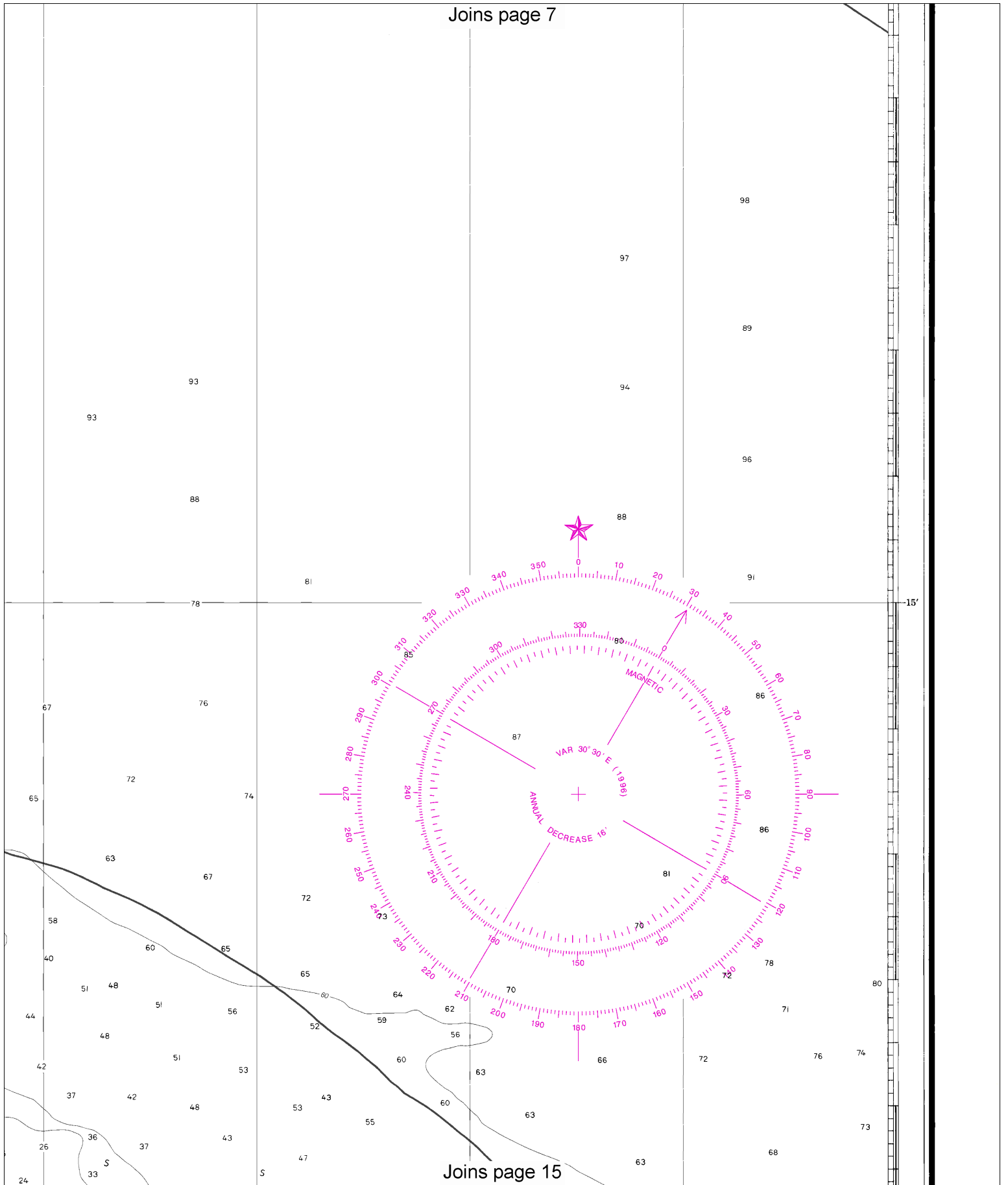
Flaxman Island

Joins page 14

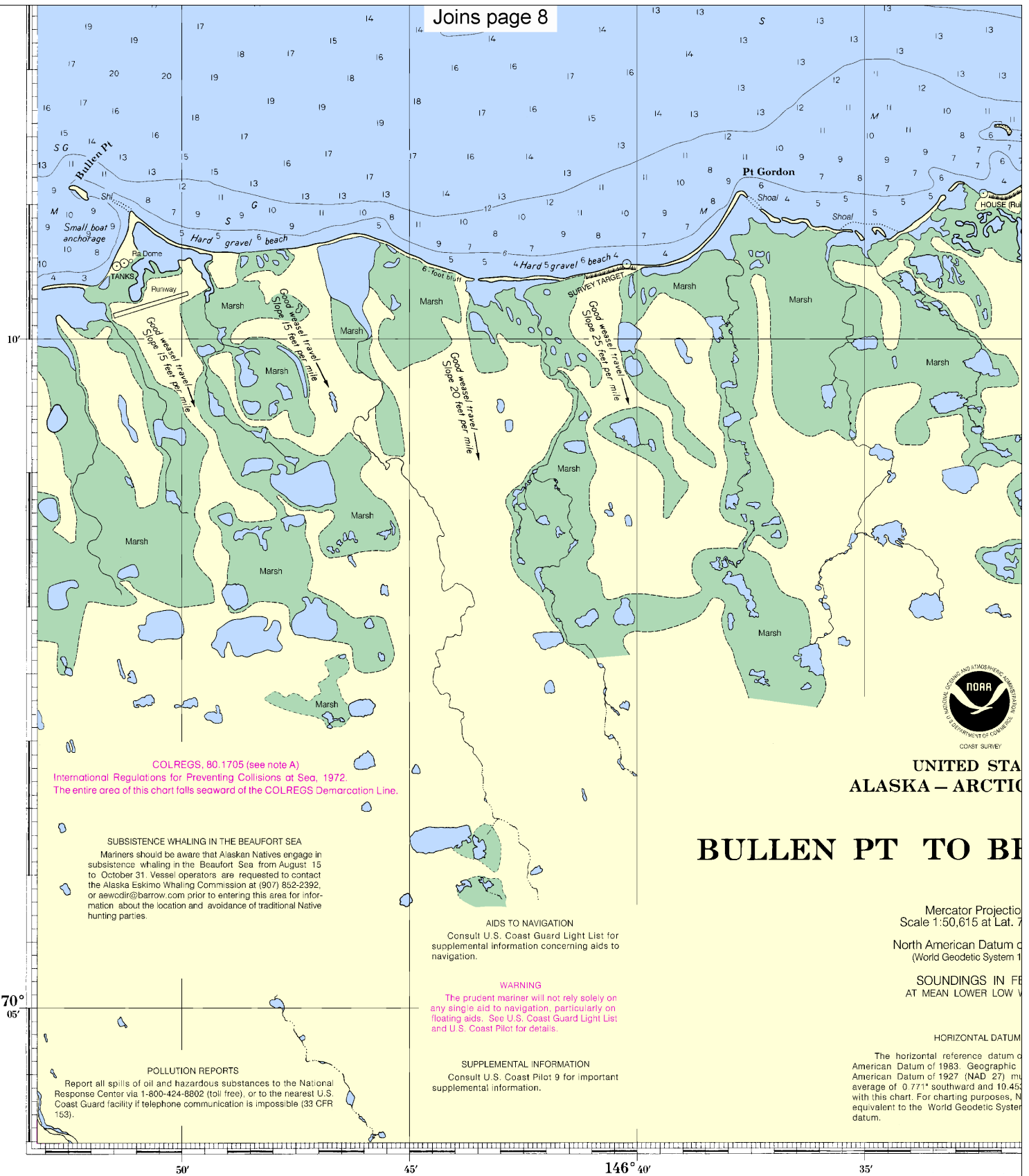
10

Note: Chart grid lines are aligned with true north.

Joins page 7



Joins page 15

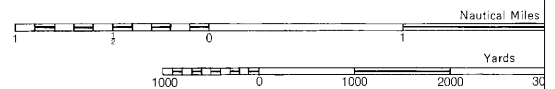


7th Ed., Oct. 12/96

16045

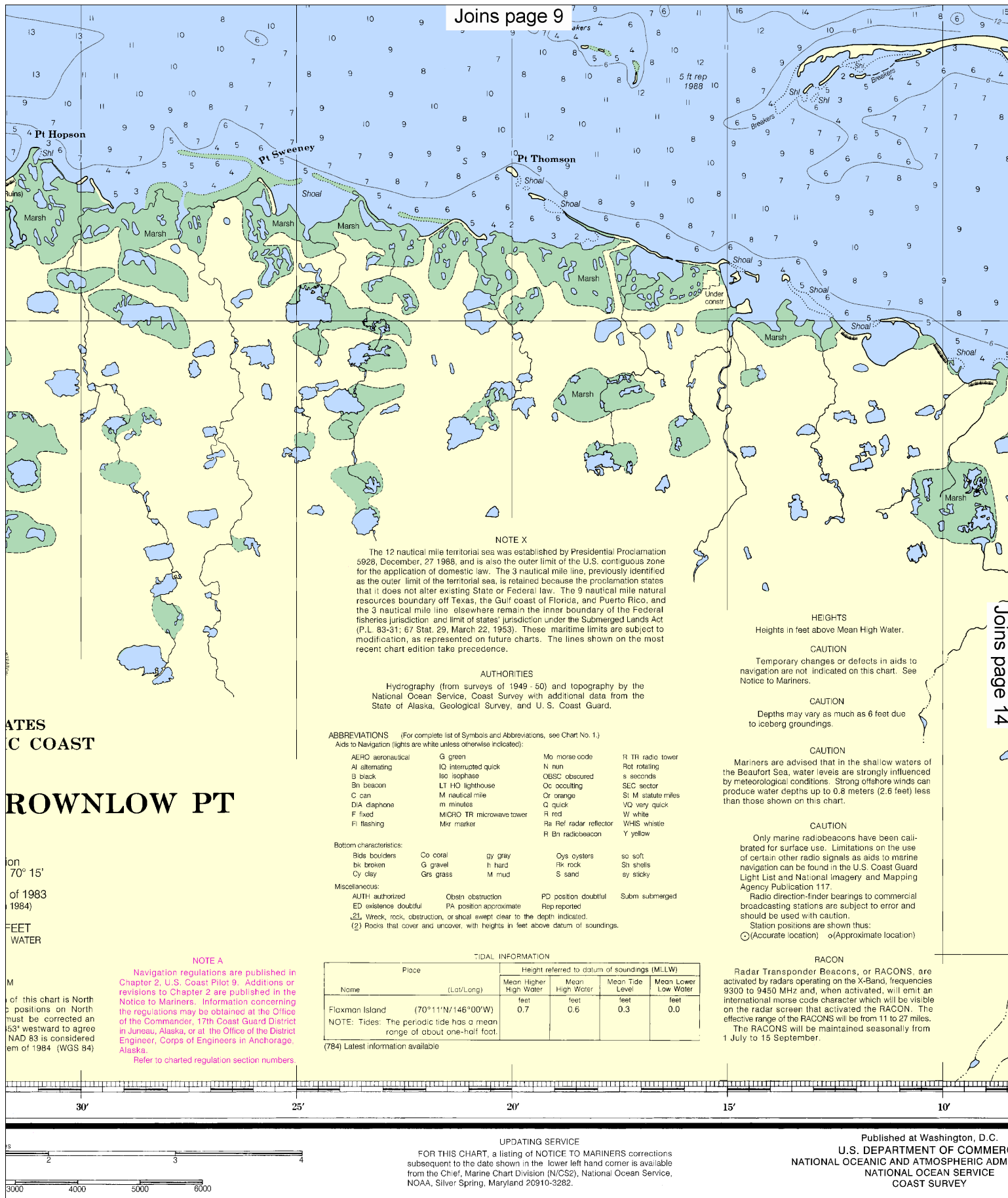
**CAUTION**

This chart has been corrected from the Notice to Mariners published weekly by the National Imagery and Mapping Agency Hydrographic / Topographic Center and the Local Notice to Mariners issued periodically by each U.S. Coast Guard District to the date shown in the lower left hand corner.



12

Note: Chart grid lines are aligned with true north.



# ATES C COAST **BROWNLOW PT**

on  
70° 15'

of 1983  
(1984)

FEET  
WATER

M

of this chart is North  
p positions on North  
must be corrected an  
53° westward to agree  
NAD 83 is considered  
em of 1984 (WGS 84)

**NOTE A**  
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska.  
Refer to charted regulation section numbers.

**NOTE X**  
The 12 nautical mile territorial sea was established by Presidential Proclamation 5928, December 27, 1968, and is also the outer limit of the U.S. contiguous zone for the application of domestic law. The 3 nautical mile line, previously identified as the outer limit of the territorial sea, is retained because the proclamation states that it does not alter existing State or Federal law. The 9 nautical mile natural resources boundary off Texas, the Gulf coast of Florida, and Puerto Rico, and the 3 nautical mile line elsewhere remain the inner boundary of the Federal fisheries jurisdiction and limit of states' jurisdiction under the Submerged Lands Act (P.L. 83-31; 67 Stat. 29, March 22, 1953). These maritime limits are subject to modification, as represented on future charts. The lines shown on the most recent chart edition take precedence.

**AUTHORITIES**  
Hydrography (from surveys of 1949-50) and topography by the National Ocean Service, Coast Survey with additional data from the State of Alaska, Geological Survey, and U.S. Coast Guard.

- ABBREVIATIONS** (For complete list of Symbols and Abbreviations, see Chart No. 1.)  
Aids to Navigation (lights are white unless otherwise indicated):
- |                   |                          |                       |                    |
|-------------------|--------------------------|-----------------------|--------------------|
| AERO aeronautical | G green                  | Mo morse code         | R TR radio tower   |
| Al alternating    | IO interrupted quick     | N nun                 | Rot rotating       |
| B black           | Is isophase              | OBS obscured          | s seconds          |
| Bn beacon         | LT HO lighthouse         | OC occulting          | SEC sector         |
| C can             | M nautical mile          | Or orange             | St M statute miles |
| DIA diaphone      | m minutes                | Q quick               | VQ very quick      |
| F fixed           | MICHO TR microwave tower | R red                 | W white            |
| Fl flashing       | Mkr marker               | Ra Rf radar reflector | WHS whistle        |
|                   |                          | R Bn radiobeacon      | Y yellow           |
- Bottom characteristics:**
- |              |           |         |             |           |
|--------------|-----------|---------|-------------|-----------|
| Bds boulders | Co coral  | gy gray | Oys oysters | so soft   |
| bk broken    | G gravel  | h hard  | Rk rock     | Sh shells |
| Cy clay      | Grs grass | M mud   | S sand      | sy sticky |
- Miscellaneous:**
- |                       |                         |                      |                |
|-----------------------|-------------------------|----------------------|----------------|
| AUTH authorized       | Obstr obstruction       | PD position doubtful | Subm submerged |
| ED existence doubtful | PA position approximate | Rep reported         |                |
- (1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.  
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

**TIDAL INFORMATION**

Place	Height referred to datum of soundings (MLLW)			
	Mean Higher High Water	Mean High Water	Mean Tide Level	Mean Lower Low Water
Flaxman Island (70°11'N/146°00'W)	0.7 feet	0.6 feet	0.3 feet	0.0 feet

**NOTE:** Tides: The periodic tide has a mean range of about one-half foot.  
(784) Latest information available

**HEIGHTS**  
Heights in feet above Mean High Water.

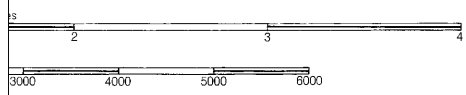
**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

**CAUTION**  
Depths may vary as much as 6 feet due to iceberg groundings.

**CAUTION**  
Mariners are advised that in the shallow waters of the Beaufort Sea, water levels are strongly influenced by meteorological conditions. Strong offshore winds can produce water depths up to 0.8 meters (2.6 feet) less than those shown on this chart.

**CAUTION**  
Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light List and National Imagery and Mapping Agency Publication 117.  
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.  
Station positions are shown thus:  
○ (Accurate location) ○ (Approximate location)

**RACON**  
Radar Transponder Beacons, or RACONS, are activated by radars operating on the X-Band, frequencies 9300 to 9450 MHz and, when activated, will emit an international morse code character which will be visible on the radar screen that activated the RACON. The effective range of the RACONS will be from 11 to 27 miles. The RACONS will be maintained seasonally from 1 July to 15 September.



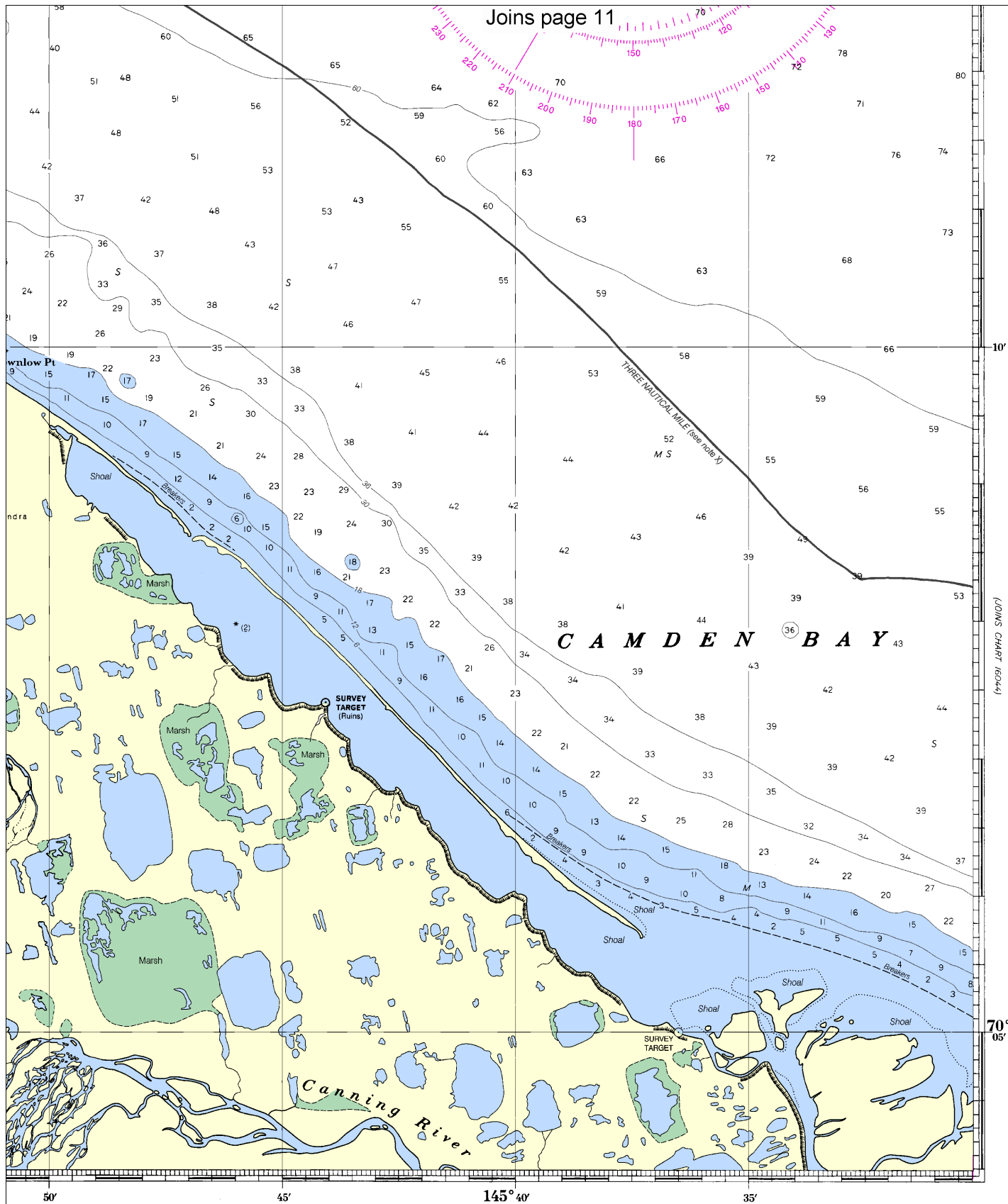
**UPDATING SERVICE**  
FOR THIS CHART, a listing of NOTICE TO MARINERS corrections subsequent to the date shown in the lower left hand corner is available from the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Published at Washington, D.C.  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
COAST SURVEY





Joins page 11



(JOINS CHART 16044)

ED. NO. 7

NSN 7642014011329  
NIMA STOCK NO. 16XHA16045

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

(Bullen Pt to Brownlow Pt)  
SOUNDINGS IN FEET - SCALE 1:50,615

16045

15



EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Online chart viewer	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html">http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey



The Nation's Chartmaker